

CANCER GENETICS AND CYTOGENETICS

Volume 37, Number 1, January 1989

Contents

der(5)(t(5;7)(q11.2;p11.2): A New Recurring Abnormality in Malignant Myeloid Disorders	1
M. Thangavelu, M.A. Bitter, R.A. Larson, E.M. Davis, J.D. Rowley, and M.M. Le Beau	
Translocation t(1;19)(q23;p13) in Acute Lymphoblastic Leukemia: A Report on Six New Cases and an Unusual t(17;19)(q11;q13), With Special Reference to Prognostic Factors	9
J.L. Lai, P. Fenaux, M.H. Estienne, J.J. Huart, J.B. Savary, P. Lepelley, J.P. Jouet, B. Nelken, F. Bauters, and M. Deminatti	
ins(6;1) in a Patient with Congenital Leukemia	19
R. Sansone, M. Sessarego, R. Haupt, M.L. Garre, and P. Strigini	
Ring Chromosome in a Patient with MEN IIA S	23
P. Temperani, E. Savin, R. Aloesio, and A. Forabosco	
Cytogenetic Analysis of Different Cellular Populations in Chronic Myelomonocytic Leukemia	29
A. Cuneo, P. Tomasi, L. Ferrari, M. Balboni, N. Piva, F. Fagioli, and Gianluigi Castoldi	
Reversion to Normal Phenotype Induced by SV40 in a Spontaneously Transformed Malignant Chinese Hamster Cell Line	39
G.B. Rayevskaya, N.B. Varshaver, and N.I. Shapiro	
Uterine Leiomyoma Cytogenetics. I. Rearrangements of Chromosome 12	49
R. Vanni, M. Nieddu, R. Paoli, and U. Lecca	
Differential Silver-Positive Nucleolus Organizer Region Activity in Normal and Malignant Murine Tissues	55
K.C. Arden, S. Pathak, S. Stettner, and E. Ritchie	
Cytogenetic Abnormalities in an Angioleiomyoma	61
M. Nilbert, N. Mandahl, S. Heim, A. Rydholm, H. Willén, and F. Mitelman	
The Chemotherapeutic Drug Melphalan Induces Breakage of Chromosome Regions Rearranged in Secondary Leukemia	65
Z. Mamuris, M. Prieur, B. Dutrillaux, and A. Aurias	
Extraskelatal Ewing's Tumor with Translocation t(11;22) in a Patient with Down Syndrome	79
L. Casorzo, L. Fessia, A. Sapino, G. Ponzio, and G. Bussolati	
Nonrandom Chromosomal Aberrations are Associated with Sites of Tissue Involvement in Non-Hodgkin's Lymphoma	85
K. Offit, M.E. Richardson, C. Quanguang, A. Hampton, P.R.K. Koduru, S.C. Jhanwar, D.A. Filippa, P.H. Lieberman, B. Clarkson, and R.S.K. Chaganti	

Mechanism of i(6p) Formation in Retinoblastoma Tumor Cells <i>B. Horsthemke, V. Greger, R. Becher, and E. Passarge</i>	95
Review Article	
The Chromosomal Analysis of Human Solid Tumors: A Triple Challenge <i>J.R. Teyssier</i>	103
Short Communications	
Translocation t(8;16)(p11;p13) in Acute Nonlymphoblastic Leukemia (M4) Possibly Secondary to Hodgkin's Disease <i>G. Barbata, P. Carbone, S. Mirto, A. Santoro, M.C. Giglio, and G. Granata</i>	127
Simultaneous Existence of Double Minute Chromosomes and a Homogeneously Staining Region in a Retinoblastoma Cell Line (Y79) and Amplification of N-myc at HSR <i>J. Inazawa, T. Abe, K. Inoue, H. Nishigaki, S. Horiike, M. Taniwaki, S. Misawa, and T. Takino</i>	133
Letter to the Editor	
Separate Karyotypic Features in a Local Recurrence and a Metastasis of a Fibrosarcoma <i>N. Mandahl, S. Heim, K. Arheden, A. Rydholm, H. Willén, and F. Mitelman</i>	139

Volume 37, Number 2, February 1989

Contents

Characterization of Rearranged Y Chromosomes in Human Testicular Tumor Cell Lines <i>J. Arnemann, G. Gradl, J. Casper, H. Schmoll, J. Schmidtke, and C. Fonatsch</i>	141
Trisomy 13 in a Case of Myelodysplastic Syndrome <i>J. Limon, W. Baran, M. Babinska, and A. Hellmann</i>	153
A Uterine Leiomyoma Showing Both t(12;14) and del(7) Abnormalities <i>S.N. Jani Sait, P. Dal Cin, S. Ovanessoff, and A.A. Sandberg</i>	157
A t(3;5) in Blastoid Phase of a Philadelphia Chromosome-Negative Chronic Myeloid Leukemia <i>M. De Braekeleer and M. Vekemans</i>	163
Chromosome 22 Breakpoints in Variant Philadelphia Translocations and Philadelphia-Negative Chronic Myeloid Leukemia <i>P.J. Browett, H.M.G. Cooke, L.M. Secker-Walker and J.D. Norton</i>	169
Genetically Different Cell Subpopulations in Hydatidiform Moles: A Study of Three Cases by RFLP, Flow Cytometric, Cytogenetic, HLA, and Morphologic Analyses <i>L. Sunde, L.O. Vejerslev, J.K. Larsen, I.J. Christensen, H.E. Hansen, B. Mogensen, and L. Bolund</i>	179

T-Cell Receptor Gene Rearrangement and its Expression in Human Myeloid Leukemia Cell Lines	193
<i>J.H. Ohyashiki, K. Ohyashiki, K. Toyama, N. Kimura, J. Minowada, A.J. Kinniburgh, and A.A. Sandberg</i>	
Cytogenetic Studies of Hodgkin's Disease: Analysis of Involved Lymph Nodes from 12 Patients	201
<i>T.R. Dennis, A.D. Stock, C.D. Winberg, K. Sheibani, and H. Rappaport</i>	
Chromosome Abnormalities in a Pancreatic Adenocarcinoma	209
<i>B. Johansson, N. Mandahl, S. Heim, F. Mertens, A. Andren-Sandberg, and F. Mitelman</i>	
Cytogenetic Observations in a Human Gastric Leiomyosarcoma	215
<i>J. Mark, B. Wedell, R. Dahlenfors, and G. Havel</i>	
Translocation of the MOS Gene in a Rare t(8;16) Associated with Acute Myeloblastic Leukemia and Down Syndrome	221
<i>M.J. Pettenati, J.W. McNay, and A.R. Chauvenet</i>	
Chromosome 17p Loss in Carcinoma of the Cervix Uteri	229
<i>N.B. Atkin and M.C. Baker</i>	
Basosquamous Papilloma: A Benign Epithelial Skin Tumor with Multiple Cytogenetic Clones	235
<i>F. Mertens, S. Heim, Y. Jin, B. Johansson, N. Mandahl, A. Biörklund, J. Wennerberg, N. Jonsson, and F. Mitelman</i>	
Cytogenetic Analysis of Four Primary Prostatic Cultures	241
<i>A.R. Brothman, L.J. Lesho, K.D. Somers, P.F. Schellhammer, L.E. Ladaga, and D.J. Merchant</i>	
Chromosome Analysis of Human Mammary Epithelial Cells at Stages of Chemical-Induced Transformation Progression to Immortality	249
<i>K.H. Walen and M.R. Stampfer</i>	
Short Communications	
Cytogenetic and Clinical Studies in Acute Promyelocytic Leukemia (M3) and Cytologic M3 Variant (M3V)	263
<i>A. Montaldi, P. Dragone, D. Scala, A. D'Emilio, R. Battista, M. Stella, and E. Dini</i>	
Translocation t(1;11)(q21;q23), A New Subgroup Within M4 Acute Nonlymphocytic Leukemia	269
<i>A.M. Meloni-Balliet, R. Morgan, J. Piatt, and A.A. Sandberg</i>	
Instability of Integrated Hepatitis B Virus DNA with Inverted Repeat Structure in a Transgenic Mouse	273
<i>O. Hino, K. Nomura, K. Ohtake, T. Kawaguchi, H. Sugano, and T. Kitagawa</i>	
Letters to the Editor	
A Case of Inv(5) in Non-Hodgkin's Lymphoma	279
<i>J.L. Huret, F. Guilhot, A. Brizard, S. Briault, P. Babin, and J. Tanzer</i>	
Involvement of 6p in Benign Lipomas: A New Cytogenetic Entity?	281
<i>S.N. Jani Sait, P. Dal Cin, A.A. Sandberg, S. Leong, C. Karakousis, U. Rao, and K. Harris</i>	

A Simple Method of Chromosomal Analysis for Colonic Adenomatous Polyps M. Longy, R. Saura, C. Mauhin, and P. Couzigou	285
Clonal Chromosome Aberrations in Normal Kidney Tissue from Patients with Renal Cell Carcinoma G. Kovacs and P. Brusa	289
Sister Chromatid Exchange and Betel Quid Chewing S.G. Adhvaryu, A.H. Trivedi, and B.J. Dave	291
An Unusual t(9;12)(p13;q24) in Childhood Acute Lymphocytic Leukemia C. Price, D. Hagger, E. Kanfer, H. Spoudeas, D. Samson, and C. Haworth	293

Volume 38, Number 1, March 1989

Contents

Localization of Amplified c-myc and n-myc in Small Cell Lung Cancer Cell Lines A.H. van der Hout, K. Kok, A.Y. van der Veen, J. Osinga, L.F.M.H. de Leij, and C.H.C.M. Buys	1
A Dysmorphic Child with Myelodysplasia Characterized by a Duplication of 1q and Multiple Duplications of 3q J.T. Mascarello, C. Osborn, and R.P. Kadota	9
Sequential Cytogenetic Studies in an Ovarian Cancer Cell Line A. Smith, C. van Haaften-Day, and P. Russell	13
Cytogenetic Characterization of a High-Grade Murine B-Cell Lymphoma R.J. van Berlo, W.M. Molenaar, B. de Jong, W. Lemstra, J. Dokter, and A.W.T. Konings	25
Different Homing Pattern of Isolated Mouse Lymphoma Cells Correlates with a Different Chromosomal Pattern R.J. van Berlo, B. de Jong, W.M. Molenaar, W. Lemstra, J. Dokter, T. Dijkhuizen, J. Wierda, and T.W.T. Konings	33
Involvement of Chromosome 22 in a Merkel Cell Carcinoma in a Patient with a Previous Meningioma F. Shabtai, A. Sternberg, D. Klar, R. Reiss, and I. Halbrecht	43
Translocation 1;7 in Four Cases of Myeloid Disorders D.M. Sheppard, K.E. Richkind, and M. Bull	49
Karyotypic Analysis of Two Related Cervical Carcinoma Cell Lines that Contain Human Papillomavirus Type 18 DNA and Express Divergent Differentiation G.K. James, D.K. Kalousek, and N. Auersperg	53
Chromosomal In Situ Hybridization and Southern Blot Analysis Using c-abl, c-sis, or bcr Probe in Chronic Myelogenous Leukemia Cells with Variant Philadelphia Translocations S. Abe, M. Minamihisamatsu, T. Ishihara, and M. Sasaki	61

Protooncogene Structure in the Cancer Family Syndrome A. Loughran, B. Johnson, J. Tierney, and M.V. Viola	75
Translocations Involving Chromosomes 2 and 13 in Benign and Malignant Cartilaginous Neoplasms J.A. Bridge, W.G. Sanger, and J.R. Neff	83
Complex Karyotypes in a Series of Pediatric Osteosarcomas J.A. Biegel, R.B. Womer, and B.S. Emanuel	89
Cytogenetic and Molecular Studies in Primary Myelofibrosis G. Emilia, P. Temperani, S. Ferrari, P. Zucchini, E. Tagliafico, L. Selleri, G. Torelli, T. Artusi, and U. Torelli	101
Short Communications	
Two New Chromosomal Abnormalities in Chronic Myelogenous Leukemia: 46,XY,t(9;15;22)(q34;q22;q11) and 46,XY,t(6;9;12;22)(p21;q34;q24;q11) G.M. Ramirez, M.J. Macera, and R.S. Verma	115
Molecular Genetic Evidence for Common Pathogenesis of Childhood and Adult Wilms' Tumor H.M. Kozman, J.M. Clarke, M.H. Little, and P.J. Smith	121
Letters to the Editor	
Chromosome 21q22 Deletion: A Specific Chromosome Change in a New Bladder Cancer Subgroup V.R. Babu, B.J. Miles, J.C. Cerney, L. Weiss, and D.L. Van Dyke	127
Translocation t(2;8) in AIDS-Associated Burkitt Leukemia M. Berkowicz, E. Rozner, G. Rechavi, I. Ben-Bassat, U. Martinowitz, F. Brok-Simoni, Y. Neumann, A. Vansover, and B. Ramot	131
Involvement of Chromosomes 1, 3, and i(8q) in Lung Adenocarcinoma M.J. Bello, S. Moreno, and J.A. Rey	133
Book Review	
Catalog of Chromosome Aberrations in Cancer, by Felix Mitelman J.D. Rowley	137
Erratum	
Cytogenetics of T-Cell Malignant Lymphoma: Report of 17 Cases and Review of the Chromosomal Breakpoints, by Roland Berger, Laurance Baranger, Alain Bernheim, Françoise Valensi, and Georges Flandrin, <i>Cancer Genet</i> <i>Cytogenet</i> 36:123-130 (1988)	141

Volume 38, Number 2, April 1989

Contents

**First European Workshop on Cytogenetics and Molecular Genetics of Human
Solid Tumors, Dijon, France, October 13-15, 1988**

Editorial Comment A.A. Sandberg	145
------------------------------------	-----

Overview	147
R. Berger	
Abstracts	153
Original Articles	
Unusual Karyotypic Evolution in Subacute Myelomonocytic Leukemia in Two Monozygotic Twins	205
L. Massaad, M. Prieur, C. Gaud, A. Fischer, and B. Dutrillaux	
Cytogenetic Findings in Two Synovial Sarcomas	215
J. Limon, K. Mrózek, B. Nedoszytko, M. Babińska, J. Jaśkiewicz, A. Kopacz, Z. Zółtowska, and J. Borowska-Lehman	
Malformation Syndrome with t(2;22) in a Cancer Family with Chromosome Instability	223
I. Magnani, L. Larizza, L. Doneda, L. Weitnauer, R. Rizzi, and R. Di Lernia	
Chromosomal Rearrangement in Choriocarcinoma Cell Lines	229
U. Surti and R. Habibian	
A Genetic Linkage Study of Familial Breast-Ovarian Cancer	241
R.E. Ferrell, D.E. Anderson, A. Chidambaram, T.R. Marino, and M. Badzioch	
Cytogenetic Characterization of a Colon Adenocarcinoma from a Familial Polyposis Coli Patient	249
M. Muleris, B. Nordlinger, and B. Dutrillaux	
A der(11)t(8;11) in Two Medulloblastomas: A Possible Nonrandom Cytogenetic Abnormality	255
D.F. Callen, L. Cirocco, and L. Moore	
Occupational History and Involvement of Chromosomes 5 and 7 in Acute Nonlymphocytic Leukemia	261
S.A. Narod and I.D. Dubé	
Nonrandom Karyotypic Changes in Immortal and Tumorigenic Syrian Hamster Cells Induced by Diethylstilbestrol	271
N. Ozawa, M. Oshimura, J.A. McLachlan, and J.C. Barrett	
Sequence of Centromere Separation: Kinetochore Formation and DNA Replication in Dicentric Chromosomes Showing Premature Centromere Separation in Rat Cerebral Cells	283
B.K. Vig, N. Paweletz, and D. Schroeter	
Short Communication	
t(6;9) in Bone Marrow Cells in Two Patients with Sarcoidosis and Acute Myeloid Leukemia	297
I. Nordenson, I. Bjermer, G. Holmgren, P. Hörnsten, and A. Wahlin	

Contents

Proceedings of the Hayashibara Forum 1988—An International Symposium on Frontiers in Cancer Research: Past, Present, and Future: Fujisaki, Okayama, Japan, November 8–10, 1988	
Meeting Abstracts	1
Original Articles	
Cytogenetic Investigation of a Case of Congenital Fibrosarcoma <i>F. Speleman, P. Dal Cin, K. De Potter, G. Laureys, H.J. Roels, J. Leroy, and H. Van Den Berghe</i>	21
Trisomy 20 in Acute Myelogenous Leukemia <i>L. Attas, S.M. Lichtman, D.R. Budman, and R.S. Verma</i>	25
Two Unrelated Clonal Chromosome Rearrangements in a Nasal Papilloma <i>Y. Jin, S. Heim, N. Mandahl, A. Biöklund, J. Wennerberg, R. Willén, and F. Mitelman</i>	29
Drug-Related Chromosomal Changes in Chemoresistant Human Ovarian Carcinoma Cells <i>J.R. Teyssier, J. Bénard, D. Ferre, J. Da Silva, and L. Renaud</i>	35
Translocation t(10;17)(p13;q12) in Two Cases of Acute Nonlymphocytic Leukemia with Phagocytic Activity of Blasts: A New Cytogenetic Entity? <i>J.L. Lai, M.H. Estienne, P. Fenaux, P. Lepelley, J.J. Huart, F. Bauters, and M. Deminatti</i>	45
Involvement of Bands 9q21-q22 in Five Cases of Acute Nonlymphocytic Leukemia <i>C. Sreekantaiah, M.R. Baer, H.D. Preisler, and A.A. Sandberg</i>	55
Cytogenetic Findings on Eight Follicular Thyroid Adenomas Including One with a t(10;19) <i>S. Bartnitzke, M.E. Herrmann, H. Lobeck, W. Zuschneid, P. Neuhaus, and J. Bullerdiel</i>	65
Diverse Chromosome Abnormalities in Squamous Cell Carcinomas of the Skin <i>S. Heim, F. Mertens, Y. Jin, N. Mandahl, B. Johansson, A. Biörklund, J. Wennerberg, N. Jonsson, and F. Mitelman</i>	69
Philadelphia-Positive Thrombocythemia with a Complex Translocation Involving Chromosomes 9, 15, and 22 <i>A.P. Palumbo, M. Boccadoro, S. Battaglio, P. Corradini, B. Giovinozzo, G. Avanzi, and G. Ponzio</i>	77
Loss of the Y Chromosome Associated with Translocation t(6;9)(p23;q34) in a Patient with Acute Nonlymphocytic Leukemia <i>R. Bernstein, M. Cain, and J. Cho</i>	81
Chromosomal Characteristics of Ph-Positive Chronic Myelogenous Leukemia in Transformation: A Study of 23 Chinese Patients in Taiwan <i>H. Tien, S. Chuang, C. Wang, F. Lee, S. Chien, Y. Chen, M. Shen, and C. Liu</i>	89

Reduced Expression of Aphidicolin-Induced Common Fragile Sites in Peripheral Lymphocyte Chromosomes of Patients with B-Cell Chronic Lymphocytic Leukemia	99
<i>B.N. Nayak and M. Ray</i>	
Cytogenetic Analysis of In Vitro Karyotype Evolution in a Cell Line Established from Nonmalignant Human Mammary Epithelium	103
<i>K.V. Nielsen and P. Briand</i>	
Acute Nonlymphocytic Leukemia in a Patient with a Constitutional inv(4)	119
<i>C. Sreekantaiah, T. Han, M.R. Baer, and A.A. Sandberg</i>	
Interstitial Deletion of Chromosome 11q in a Pineoblastoma	125
<i>C. Sreekantaiah, H. Jockin, M.L. Brecher, and A.A. Sandberg</i>	
Short Communication	
Near-Haploid Cell Line in Megakaryoblastic Transformation of Philadelphia-Positive Chronic Myeloid Leukemia	133
<i>K.M. Mayne and E.J. Maher</i>	
Letters to the Editor	
Lack of Chromosome 22 Rearrangements in Lymphocytes of Patients with Bilateral Acoustic Neurofibromatosis	137
<i>F. Faustinella, L. Larizza, P. Guerra, and G. Tomei</i>	
Heterochromatic Polymorphisms of Chromosome 16 Evidenced by Alu I Endonuclease Digestion in Chronic Myelogenous Leukemia	139
<i>L. Stuppia, P.G. Franchi, G. Calabrese, C. Di Virgilio, G. Parruti, and G. Palka</i>	
Carcinoma of the Gall Bladder in Three Members of a Family	141
<i>J.E. Garber and W. Shipley</i>	

Volume 39, Number 2, June 1989

Contents

Translocation 3;21 in Philadelphia Chromosome Positive Chronic Myeloid Leukemia at Diagnosis	143
<i>P.W. Thompson and J.A. Whittaker</i>	
Philadelphia Chromosome Negative Acute Lymphoblastic Leukemia Preceding Philadelphia Positive Chronic Myelogenous Leukemia	147
<i>P. Hörnsten, I. Nordenson, and A. Wahlin</i>	
Partial 6q Deletion in a Human Salivary Gland Adenocarcinoma	153
<i>G. Stenman, J. Sandros, J. Mark, and S. Edström</i>	
Fragile Site Expression in Families with von Hippel-Lindau Disease	157
<i>D.K. Jordan, J.E. Divelbiss, M.H. Waziri, T.L. Burns, and S.R. Patil</i>	

Acute Leukemia With Abnormal Thrombopoiesis and Inversions of Chromosome 3 R.B. Jenkins, A. Tefferi, L.A. Solberg, Jr., and G.W. Dewald	167
Chromosome Changes in a Brain Metastasis of a Large Cell Lung Cancer A. Selypes and A. László	181
Association of Trisomy 8 and Squamous Differentiation in an Endometrial Adenocarcinoma J.A. Fletcher, J.C. Aster, and C.C. Morton	185
Double Minutes in Two Primary Adenocarcinomas of the Prostate J. Limon, R. Lundgren, P. Elfving, S. Heim, U. Kristoffersson, N. Mandahl, and F. Mitelman	191
No Amplification or Rearrangement of INT1, GLI, or COL2A1 in Uterine Leiomyomas with t(12;14)(q14-15;q23-24) K. Arheden, M. Nilbert, S. Heim, N. Mandahl, and F. Mitelman	195
Simultaneous Cell Type Identification and Premature Chromosome Condensation Analysis in a Case of Multiple Myeloma I. Petkovic, P. Agbor, and W.N. Hittelman	203
Cytogenetic Abnormalities Common to Adenocarcinoma Metastatic to the Pleura P.T. Cagle, L.D. Taylor, M.R. Schwartz, I. Ramzy, and F.F.B. Elder	219
Clonal Chromosome Aberrations in a Keratocanthoma and a Basal Cell Papilloma F. Mertens, S. Heim, N. Mandahl, B. Johansson, A. Rydholm, A. Biörklund, J. Wennerberg, N. Johsson, and F. Mitelman	227
Spontaneous and 4-Nitroquinoline 1-Oxide-Induced G2 Chromosome Aberrations in Lymphoblasts from Familial Melanoma Patients G. Lu, N.K. Hayward, and W.S. Stanley	233
Human Skin Fibroblast In Vitro Tetraploidy: Flow Cytometric DNA Assay Used to Confirm Metaphase Assay in Patients with Various Colonic Diseases L.B. Svendsen, J.K. Larsen, and I.B. Christensen	245
A Cytogenetic Study of 53 Human Gliomas R.B. Jenkins, D.W. Kimmel, C.A. Moertel, C.G. Schultz, B.W. Scheithauer, P.J. Kelly and G.W. Dewald	253
Cytogenetic Subtype Involving Chromosome 13 in Lipoma: Report of Three Cases C. Sreekantaiah, C.S. Berger, C.P. Karakousis, U. Rao, S.P.L. Leong, and A.A. Sandberg	281
Short Communication	
Loss of Heterozygosity on 3p in a Renal Cell Carcinoma in von Hippel-Lindau Syndrome H.J.H. Decker, R.M. Gemmill, H.P.H. Neumann, T.A. Walter, and A.A. Sandberg	289
Letters to the Editor	
A Further Case of Acute Myelogenous Leukemia with Trisomy 4 and Double Minutes S.H. Parry, B. Gibbons, B.H. Czepulkowski, J.A. Amess, and V.E. Oxley	295
Karyotypic Changes During the Course of Blastic Crisis of Chronic Myelogenous Leukemia K. Mitani, K. Miyazono, A. Urabe, and F. Takaku	299

Contents

Tenth Anniversary of Cancer Genetics and Cytogenetics	
Editorial	1
A.A. Sandberg	
Solid Tumor Cytogenetics: Progress Since 1979	3
N.B. Atkin	
Cytogenetics of Childhood Acute Nonlymphocytic Leukemia	13
S.C. Raimondi, D.K. Kalwinsky, Y. Hayashi, F.G. Behm, J. Mirro, Jr., and D.L. Williams	
Original Articles	
Cytogenetic Analysis of a Mesenchymal Hamartoma of the Liver	29
F. Speleman, V. De Telder, K.R. De Potter, P. Dal Cin, S. Van Daele, Y. Benoit, J.G. Leroy, and H. Van Den Berghe	
Karyotypic Evolution of Human Meningioma: Progression Through Malignancy	33
C. Casartelli, S.R. Rogatto, and J.B. Neto	
Spontaneous Chromosome Fragility in Band 3q21, 11p11, or 11q13 of Cultured Bone Marrow Cells from Two Patients with Hematologic Disorders	47
S. Abe, C. Nishida-Umehara, T. Tamura, C. Mikuni, and M. Sasaki	
Synchronization of Cultured Retinoblastoma Cells for High-Resolution Chromosomes Showing up to 1000 Bands	55
N. Lemieux and C.-L. Richer	
A Hypodiploid Karyotype Found in Immortal Human Cells, Selected from a Wide Spectrum of Posttransformation Chromosomal Complements	65
T. Naiman and D. Canaani	
Involvement of c-myc Oncogene in Lymphoma Cell Lines with No Detectable Chromosome Rearrangement of Band 8q24	73
H. Ohno, S. Fukuhara, S. Doi, R. Amakawa, M. Horii, Y. Akiyama, W. Fukuda, T. Honjo, T. Sugiyama, and H. Uchino	
Mixed Lineage Leukemia with Cytogenetically Unrelated Abnormal Clones	83
G. Bardi, N. Pandis, P. Arsenis, M. Stamatellou, K. Dermitzaki, C. Papanastasiou, S. Tsakanikas, and A. Kallinikou-Maniatis	
Localization of the raf-1 Protooncogene on Chromosome 6 of the Mouse	89
S. Tailor and P.A. Martin-DeLeon	
Jumping End-to-End Dicentrics in a Case of Squamous Cell Carcinoma from a Patient with Xeroderma Pigmentosum	95
R. Aledo, A. Aurias, M.-F. Avril, and B. Dutrillaux	
Acquisition of Additional Primary Chromosome Abnormalities in the Course of Karyotype Evolution in a Case of FAB-M2 Acute Leukemia	105
D. Battaglia, I. Dubé, P. Pinkerton, and J. Senn	

Chromosomal Composition of Malignant Human Gliomas Through Serial Subcutaneous Transplantation in Athymic Mice	111
<i>S.H. Bigner, S.C. Schold, H.S. Friedman, J. Mark, and D.D. Bigner</i>	
der(1)t(1;9): A Specific Chromosome Abnormality in Polycythemia Vera? Cytogenetic and In Situ Hybridization Studies	121
<i>J.I. den Nijs van Weert, G.C. Beverstock, T. Kievits, H.L. Haak, F.C.T. Havik-Bogaard, and C.H.W. Leeksa</i>	
Short Communication	
Chromosome 12q Heterozygosity Is Retained in 1(12p)-Positive Testicular Germ Cell Tumor Cells	129
<i>A. Geurts van Kessel, E. van Drunen, B. de Jong, J. W. Oosterhuis, A. Langeveld, and M.P. Mulder</i>	
Letters to the Editor	
Fragile Site 1p13.1 in Neuroblastoma Patients	135
<i>P. Vernole, B. Tedeschi, D. Caporossi, and B. Nicoletti</i>	
Nonrandom Numerical Chromosome Aberrations (+8, +11, +17, +20) in Infantile Fibrosarcoma	137
<i>N. Mandahl, S. Heim, A. Rydholm, H. Willen, and F. Mitelman</i>	

Volume 40, Number 2, July 15, 1989

Contents

General Report of the Sixth International Workshop on Chromosomes in Leukemia, London, England, May 11-18, 1987	141
<i>S.D. Lawler</i>	
Clinical-Cytogenetic Correlations in Myelodysplasia (Preleukemia)	149
<i>R.V. Pierre, D. Catovsky, G.J. Mufti, G.J. Swansbury, C. Mecucci, G.W. Dewald, T. Ruutu, H. Van Den Berghe, J.D. Rowley, F. Mitelman, B.R. Reeves, G. Alimenta, O.M. Garson, S.D. Lawler, and A. de la Chapelle</i>	
Cytogenetic Studies of 21 Patients with Acute Lymphoblastic Leukemia in Relapse	163
<i>L.M. Secker-Walker, G. Alimenta, C.D. Bloomfield, Y. Kaneko, J. Whang-Peng, D.C. Arthur, A. de la Chapelle, B.R. Reeves, J.D. Rowley, S.D. Lawler, and F. Mitelman</i>	
Six-Year Follow-up of the Clinical Significance of Karyotype in Acute Lymphoblastic Leukemia	171
<i>C.D. Bloomfield, L.M. Secker-Walker, A.I. Goldman, H. Van Den Berghe, A. de la Chapelle, T. Ruutu, G. Alimenta, O.M. Garson, H.M. Golomb, J.D. Rowley, Y. Kaneko, J. Whang-Peng, E. Prigogina, P. Philip, A.A. Sandberg, S.D. Lawler, and F. Mitelman</i>	

Cytogenetic Studies of 103 Patients with Acute Myelogenous Leukemia in Relapse	187
O.M. Garson, A. Hagemeijer, M. Sakurai, B.R. Reeves, G.J. Swansbury, G.J. Williams, G. Alimenta, D.C. Arthur, R. Berger, A. de la Chapelle, G.W. Dewald, F. Mitelman, H. Van Den Berghe, S.D. Lawler, and J.D. Rowley	
The Clinical Significance of Karyotype in Acute Myelogenous Leukemia	203
D.C. Arthur, R. Berger, H.M. Golomb, G.J. Swansbury, B.R. Reeves, G. Alimenta, H. Van Den Berghe, C.D. Bloomfield, A. de la Chapelle, G.W. Dewald, O.M. Garson, A. Hagemeijer, Y. Kaneko, F. Mitelman, R.V. Pierre, T. Ruutu, M. Sakurai, S.D. Lawler, and J.D. Rowley	
Summary and Discussion	
The Contribution of Molecular Genetics to the Study of Leukemia	217
M.F. Greaves	

Volume 41, Number 1, August 1989

Contents

10th Anniversary Articles

Immunophenotyping of Aneuploid Cells	1
S. Knuutila and L. Teerenhovi	

The Involvement of the Cell Matrix Receptors, or VLA Integrins, in the Morphogenetic Behavior of Normal and Malignant Cells Is Gradually Being Uncovered	19
J.-J. Cassiman	

Original Articles

Specificity of Asbestos-Induced Chromosomal Aberrations in Short-Term Cultured Human Mesothelial Cells	33
K. Olofsson and J. Mark	

Coincidence in Fragile Site Expression with Flurideoxyuridine and Bromodeoxyuridine	41
A.F. Fundia and I.B. Larripa	

Cytogenetics in Patients with Chronic Myelogenous Leukemia Treated with Bone Marrow Transplantation	49
G. Calabrese, P. Di Bartolomeo, L. Stuppia, P. Guanciali Franchi, G. Parruti, M. Ciancarelli, F. Angrilli, L. Geraci, and G. Palka	

Cytogenetic Effects of Radiotherapy: Breakpoint Distribution in Induced Chromosome Aberrations	61
L. Barrios, R. Miró, M.R. Caballín, C. Fuster, F. Guedea, A. Subias, and J. Egozcue	

Densitometric Measurements of C Bands of Chromosomes 1, 9, 16, and Y in Leukemic and Preleukemic Disorders	71
D.A. Sampaio, M.S. Mattevi, I.J. Cavalli, and B. Erdtmann	

Hyperdiploidy Including Trisomy 8 in a Cystic Partially Differentiated Nephroblastoma	79
C.F. Timmons, L. McGavran, L. Unterkircher, J.B. Beckwith, and H.L. Wilson	
Appearance of Transient inv(14)(q11q32) in a case of B Cell Chronic Lymphocytic Leukemia	87
B. Schlegelberger, L. Zech, H. Euler, H. Löffler, A. Himmler, and A. Feller	
Multiple Clonal Chromosome Aberrations in Two Thymomas	93
U. Kristoffersson, S. Heim, N. Mandahl, M. Åkerman, and F. Mitelman	
inv(12)(p11.2q13) in an Endometrial Polyp	99
T.A. Walter, S.X. Fan, M.T. Medchill, C.S. Berger, H.-J.H. Decker, and A.A. Sandberg	
A Malignant Mixed Gonadal Stromal Tumor of the Testis with Heterologous Components and i(12p) in One of its Metastases	105
J.W. Oosterhuis, S.M.M.J. Castedo, B. de Jong, R. Seruca, A. Dam, A. Vos, J. de Koning, H. Schraffordt Koops, and D.Th. Sleijfer	
Complex Cytogenetic Aberrations in a Well-Differentiated Chondrosarcoma	115
J.A. Fletcher, K.K. Lipinski, N. Weidner, and C.C. Morton	
Translocation 10;17 in Clear Cell Sarcoma of the Kidney: A First Report	123
H.H. Punnett, G.E. Halligan, N. Zaeri, and N. Karmazin	
Ultraviolet-Induced Formation of Micronuclei and Sister Chromatid Exchange in Cultured Fibroblasts of Patients with Cutaneous Malignant Melanoma	129
M. Roser, A. Böhm, M. Oldigs, M. Weichenthal, U. Reimers, U. Schmidt-Preuss, E.W. Breitbart, and H.W. Rüdiger	
Short Communication	
A Translocation (7;10)(q35;q21) in a Differentiated Papillary Carcinoma of the Thyroid	139
P. Antonini, A.M. Venuat, G. Linares, B. Caillou, R. Berger, and C. Parmentier	
Letters to the Editor	
Cytogenetic Analysis of a Leiomyosarcoma Cell Line (SK-UT-1B): Normal Diploid or with 21q Deletion?	145
S. Pathak and M.K. Dhaliwal	
Trisomy 7 in a Case of Transitional Cell Carcinoma of the Kidney	149
R. Vanni, M. Nieddu, R.M. Scarpa, R. Migliari, and E. Usai	

Volume 41, Number 2, September 1989

Contents

10th Anniversary Article

Molecular Biology and Genetics of Human Neuroblastoma	153
G.M. Brodeur and C. Fong	

Original Articles

- Cytogenetic Follow-Up from Direct Preparation to Advanced In Vitro Passages
of a Human Malignant Glioma 175
J.A. Rey, M.J. Bello, J.M. de Campos, M.E. Kusak, and S. Moreno

- Chromosomal Evolution in the Progression and Metastasis of Human Malignant
Melanoma: A Multiple Lesion Study 185
M.I. Pedersen and N. Wang

Letter to the Editor

- Acute Nonlymphocytic Leukemia with Trisomy 4 203
P. Temperani, P. Zucchini, T. Artusi, S. Sacchi, and G. Emilia

- The Third International Workshop on Chromosomes in Solid Tumors (IWCST),
Tucson, Arizona, February 26-28, 1989** 207
Organizer: J.M. Trent

- Preface 209
J.M. Trent

- Conference Overview 211
A. de la Chapelle

- Abstracts 215

Volume 42, Number 1, October 1, 1989

Contents

10th Anniversary Articles

- Prognostic Significance of Single Chromosome Abnormalities
in Preleukemic States 1
P.C. Nowell and E.C. Besa

- The Variable Hematologic Expression of the BCR-ABL Genomic Mutation and Its
Possible Determinants 9
P.H. Fitzgerald and C.M. Morris

Original Articles

- Cytogenetic and Quantitative DNA Analysis of Primary and Xenografted Human
Osteosarcomas 27
*N. Mandahl, S. Heim, O. Brosjö, H.C.F. Bauer, B. Tribukait, A. Rydholm, and F.
Mitelman*

- A Human Adult Wilms' Tumor: Histologic, Ultrastructural,
and Cytogenetic Analysis 35
J.B. Sherwood, R. Bard, M. Bhargava, E.R. Burns, and M.A. Iqbal

- Chromosomal Differences Between Acute Nonlymphocytic Leukemia in Patients
with Prior Solid Tumors and Prior Hematologic Malignancies: A Study of 14
Cases with Prior Breast Cancer 43
Z. Mamuris, J. Dumont, B. Dutrillaux, and A. Aurias

Different Karyotypic Abnormalities, t(1;6) and del(7), in Two Uterine Leiomyomas from the Same Patient	51
M. Nilbert, S. Heim, N. Mandahl, U.-M. Flodérus, H. Willén, and F. Mitelman	
Refractory Anemia with Excess of Blasts in Transformation: Clinical, Hematologic, and Cytogenetic Findings in Nine Patients	55
N. Smadja, M. Krulik, A. de Gramont, G. Gonzalez-Canali, A.A. Audebert, and J. Debray	
A Complex t(3;8;17) Involving Breakpoint 8p11 in a Case of M5 Acute Nonlymphocytic Leukemia with Erythrophagocytosis	67
M.F. Bertheas, J. Jaubert, C. Vasselon, J. Reynaud, G. Pomier, J.C. Le Petit, A. Hagemeijer, and C.P. Brizard	
Evolution of Compound Centromeres: A New Phenomenon	65
N. Paweletz, B.K. Vig, E.-M. Finze	
Detection of Chromosome Aberrations in Interphase Tumor Nuclei by Nonradioactive In Situ Hybridization	87
P.M. Nederlof, S. van der Flier, A.K. Raap, H.J. Tanke, M. van der Ploeg, F. Kornips, and J.P.M. Geraedts	
Cytogenetic Analysis of Two C-1300 Murine Neuroblastoma Cell Lines Expressing Discordant Malignant Behavior	99
J. Sawyer and M. Tuchman	
The Expression Frequency of Common Fragile Sites and Genetic Susceptibility to Lung Cancers	107
C. Liu, G. Wang, and P. Li	
Characterization of Three Human Malignant Mesothelioma Cell Lines	115
M.A. Versnel, H.C. Hoogsteden, A.N. Hagemeijer, M.J. Bouts, T.H. van der Kwast, M. Delahaye, G. Schaart, and F.C.S. Ramaekers	
The Common Acute Lymphoblastic Leukemia Antigen (Neutral Endopeptidase-3.4.24.11) Gene is Located on Human Chromosome 3	129
R. Tran-Paterson, H.F. Willard, and M. Letarte	
Distribution of Marker Chromosomes in Relation to Histologic Grade in Bladder Cancer	135
J. Milašin, M. Mičić, S. Mičić, and V. Diklić	
The INT1 Oncogene is Not Rearranged or Amplified in Lipomas with Structural Chromosomal Abnormalities of 12q13-15	143
K. Arheden, N. Mandahl, S. Heim, and F. Mitelman	
Direct Cytogenetic Analysis of Primary Neuroblastoma	147
I. Petković, M. Nakić, and Mladen Čepulić	
Commentary	
The Annals of Cancer Genetics: The Description by Norris of Hereditary Malignant Melanoma of the Skin in 1820	153
F. Hecht	

Contents

10th Anniversary Articles

- Preferential Sites for Viral Integration on Mammalian Genome 157
N.C. Popescu and J.A. DiPaolo

- Twenty-Six Patients With Hematologic Disorders and X Chromosome Abnormalities: Frequent idic(X)(q13) Chromosomes and Xq13 Anomalies Associated With Pathologic Ringed Sideroblasts 173
G.W. Dewald, M. Brecher, L.B. Travis, and P.J. Stupca

Original Articles

- Structural Chromosome Aberrations in an Adamantinoma 187
N. Mandahl, S. Heim, A. Rydholm, H. Willén, and F. Mitelman

- Cytogenetic and Molecular Studies in Patients with Chronic Myeloid Leukemia and Variant Philadelphia Translocations 191
A. Zaccaria, N. Testoni, A. Tassinari, B. Celso, F. Rassool, G. Saglio, A. Guerrasio, G. Rosti, and S. Tura

- Cytogenetic Evidence of Multifocal Origin of a Unilateral Retinoblastoma: A Help in Genetic Counseling 203
H.-F. Tien, S.-M. Chuang, M.-S. Chen, F.-Y. Lee, and P.-K. Hou

- Translocation t(6;9) Occurring in Acute Myelofibrosis, Myelodysplastic Syndrome, and Acute Nonlymphocytic Leukemia Suggests Multipotent Stem Cell Involvement 209
A. Cuneo, S. Kerim, E. Vandenberghe, A. Van Orshoven, J. Rodhain, A. Bosly, P. Zachee, A. Louwagie, J.-L. Michaux, P. Dal Cin, and H. Van Den Berghe

- Are Germ Cell Tumors Part of the Li-Fraumeni Cancer Family Syndrome? 221
A.L. Hartley, J.M. Birch, A.M. Kelsey, H.B. Marsden, M. Harris, and M.D. Teare

- Cytogenetic Abnormalities in Tumors of Patients with von Hippel-Lindau Disease 227
D.K. Jordan, S.R. Patil, J.E. Divelbiss, S. Vemuganti, C. Headley, M.H. Waziri, and N.J. Gurll

- Isochromosome 12p in Mediastinal Germ Cell Tumor 243
P. Dal Cin, A. Drochmans, P. Moerman, and H. Van Den Berghe

- Cytogenetic Follow-up After Bone Marrow Transplantation for Philadelphia-positive Chronic Myeloid Leukemia 253
M. Sessarego, F. Frassoni, R. Defferrari, A. Bacigalupo, S. Miceli, C. Mareni, and F. Ajmar

- Increased Chromosome Breakage by N-Methyl-N¹-Nitro-N-Nitrosoguanidine in Patients with Adenomatous Polyposis Coli 263
J.D.A. Delhanty and H.M.G. Cooke

- Sister Chromatid Exchange and Chromosome Fragility in the Nevroid Basal Cell Carcinoma Syndrome 273
A.E. Bale, S.J. Bale, H. Murli, J. Ivett, J.J. Mulvihill, and D.M. Parry

Chromosomal Rearrangements in Barrett's Esophagus: A Premalignant Lesion of Esophageal Adenocarcinoma	281
H.S. Garewal, R. Sampliner, Y. Liu, and J.M. Trent	
Studies of BCR and ABL Gene Rearrangements in Chronic Myelogenous Leukemia Patients by Conventional and Pulsed-Field Gel Electrophoresis Using Gel Inserts	287
X. Jiang, J.M. Trujillo, D. Dao, and J.C. Liang	
Long-range Restriction Enzyme Maps of DNF15S2, D3S2, and c-raf1 Loci on the Short Arm of Human Chromosome 3	295
F. Boldog, R. Erlandsson, G. Klein, and J. Sumegi	
Letters to the Editor	
A New Case of dic(9;12)(p13;p11) in Acute Lymphocytic Leukemia	307
J.L. Lai, M. Deminatti, M.H. Estienne, M. Zandecki, B. Nelken, and P. Fenaux	
Multiple Clonal Chromosome Abnormalities in a Superficial Basal Cell Epithelioma	309
S. Scappaticci, M. Fraccaro, and G. Orecchia	
Book Review	
<i>Principles and Practice of Pediatric Oncology</i> , edited by Philip A. Pizzo and David G. Poplack	313
F. Hecht	

Volume 43, Number 1, November 1989

Contents

10th Anniversary Articles

Chromosome Aberrations in Nine Patients with Ovarian Cancer	1
K. Tanaka, C.R. Boice, and J.R. Testa	

The Cytogenetics of Renal Tumors: Where do we stand, where do we go?	15
T.A. Walter, C.S. Berger, and A.A. Sandberg	

Original Articles

Trisomy 14: A New Entity Within Acute Nonlymphocytic Leukemia	35
A. Meloni-Balliet, R. Morgan, J.L. Poth, E.C. Kingsley, and A.A. Sandberg	

Three Possible Cytogenetic Subgroups of Leiomyosarcoma	39
L. Boghosian, P. Dal Cin, C. Turc-Carel, U. Rao, C. Karakousis, S. Jani Sait, and A.A. Sandberg	

Translocation t(9;9)(p13;q34) in Philadelphia-negative Chronic Myeloid Leukemia with Breakpoint Cluster Region Rearrangement	51
M. Sessarego, C. Mareni, R. Vimercati, R. Defferrari, P. Origone, E. Damasio, and F. Ajmar	

Cytogenetic Analysis in Essential Thromocythemia at Diagnosis and at Transformation: A 12-Year Study	57
M. Sessarego, R. Defferrari, A.M. Dejana, A.M. Rebuttato, G. Fugazza, E. Salvidio, and F. Ajmar	

Detection of Posttransplant Minimal Disease Chronic Myelogenous Leukemia by bcr Rearrangement Analysis	67
A.E. Anderson, N.R. Schneider, G.J. Allen, R. Ranganathan, J. Burns, S.C. Jhanwar, E.A. Klein, I. Cunningham, R.J. O'Reilly, and R.S.K. Chaganti	
First Cytogenetic Evidence of Homozygosity for the Retinoblastoma Deletion in Chromosome 13	73
N. Lemieux, J. Milot, M. Barsoum-Homsy, J. Michaud, T.-K. Leung, and C.-L. Richer	
Increased Spontaneous and Mitomycin C-Induced Sister Chromatid Exchanges in Patients with Cancer of the Cervix Uteri, with Special Reference to Stage of Cancer	79
K. Yokota, K. Ueda, K. Ohama, and A. Fujiwara	
Clonal Chromosome Abnormalities with Preferential Involvement of Chromosome 3 in Patients with Porokeratosis of Mibelli	89
S. Scappaticci, S. Lambiase, G. Orecchia, and M. Fraccaro	
Patients with Different Lung Cancers Show Normal Expression of fra(3)(p14.2) in Aphidicolin-Treated Lymphocyte Cultures	95
B. Porfirio, P. Paladini, M. Maccherini, G. Gotti, M. Cintorino, and M. De Marchi	
A New Variant Translocation 11;17 in a Patient with Acute Promyelocytic Leukemia Together with t(7;12)	103
V. Najfeld, A. Scalise, and K. Troy	
Cytogenetic and Molecular Genetic Analysis of Abnormal Cells in Hodgkin's Disease	109
P.R.K. Koduru, K. Offit, D.A. Filippa, P.H. Lieberman, and S.C. Jhanwar	
Is Trisomy 22 in Acute Myeloid Leukemia a Primary Abnormality or Only a Secondary Change Associated with Inversion 16?	119
N. Grois, H. Nowotny, E. Tyl, O. Krieger, P. Kier, and O.A. Haas	
Common Fragile Sites in Chromosomes of Bone Marrow Cells and Peripheral Blood Lymphocytes from Healthy Persons and Leukemia Patients	131
T. Furuya, H. Ochi, and S. Watanabe	
Short Communication	
Acute Myelogenous Leukemia (FAB M1) Associated with t(5;16) and Eosinophilia: Report of an Additional Case	139
I. Sanada, N. Aso, S. Kojima, F. Kawano, T. Shido, and K. Takatsuki	

Volume 43, Number 2, December 1989

Contents

10th Anniversary Articles

Cytogenetic and Molecular Changes in Chronic B-Cell Leukemia	143
P.E. Crossen	

Centromere Structure and Function in Neoplasia B.G. Vig, K.L. Sternes, and N. Paweletz	151
Original Articles	
Abnormalities of Chromosome 1 in Relation to Human Malignant Diseases É. Oláh, E. Balogh, I. Kovács, and A. Kiss	179
Molecular Analysis of Philadelphia-Negative Myeloproliferative Syndromes with i(17q) C. Mareni, M. Sessarego, P. Origone, R. Defferrari, F. Frassoni, and F. Ajmar	195
Chromosome 1 Studies in Wilms' Tumor H. McDowell, P. Howard, J. Martin, C. Hart, and J. Crampton	203
Four Cases of Acute Leukemia with Trisomy 4 P.W. Thompson, E.N. Thompson, and J.A. Whittaker	211
Ultraviolet-induced Chromosomal Instability in Cultured Fibroblasts of Heterozygote Carriers for Xeroderma Pigmentosum V. Bielfeld, M. Weichenthal, M. Roser, E. Breitbart, J. Berger, E. Seemanova, and H.W. Rüdiger	219
Cytogenetic and Clinical Investigations in 76 Cases with Therapy-related Leukemia and Myelodysplastic Syndrome A. Iurlo, C. Mecucci, A. Van Orshoven, J.-L. Michaux, M. Boogaerts, L. Noens, A. Bosly, A. Louwagie, and H. Van Den Berghe	227
Translocation t(13;17)(q12-14;p12-13) in Two Patients with Lymphocytic Lymphoma D. Leroux, J.J. Sotto, M.C. Jacob, P. Couderc, M. Monteil, and P. Jalbert	243
Letter to the Editor	
A Clonal t(9;12)(q32;q21) in Cultured Fibroblasts from a Case of Bowen's Disease S. Scappaticci, S. Lambiase, M. Fraccaro, and G. Orecchia	249
Author Index	251
Subject Index	257
Volume Contents	
Announcements	

